

NORTHRUP EXHIBIT O

M. All Day

6 Cels w/ Mito Ching

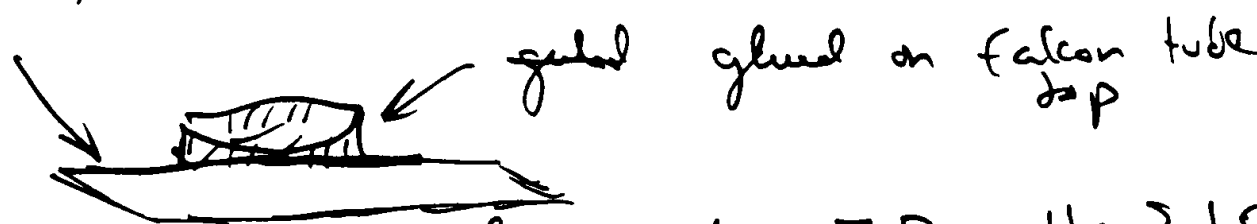
PCP Exns on miles heaters 35 ~~HT~~ heaters
 Volume ~ 25 μ l Volume walls

1) Standard runs 20, 20, 30, 40 μ l

20, 30, 40 μ l w/ graphite pencil tips
 ~ 60 μ l oil in each

water temp:
 max = 45°C
 min = 42°C

2) Device: ~ 60 μ l run mixture
 ~ ~~excess~~ excess oil



Cycling w/ 7.7 volts } 1.5 W
 200 mA

oil warms? up

upline ~ 47 sec / 29 sec = 21st cycle
 down = 23 sec / 15 sec = " "

- Thermocouple touching membrane center
- Type (?)
- Diameter .005" = 100 μ m
 tip ~ 200 μ m

poly = ~~0.4~~ thickness 0.6 μ m
 alumina: 0.3 μ m

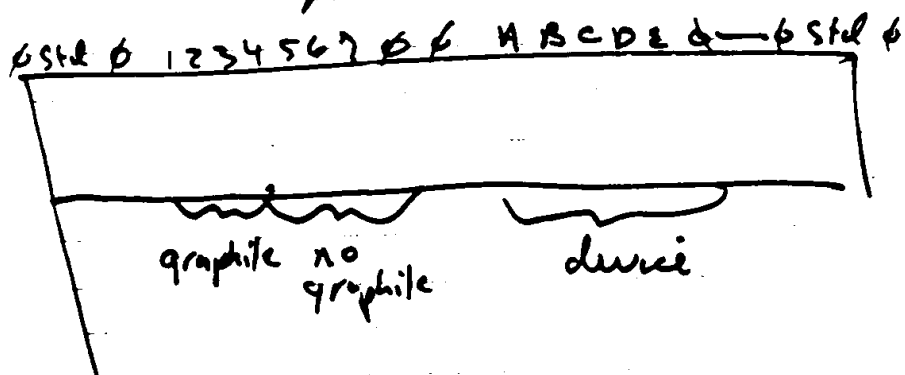
Cont

M. Allong

- 30 cycles completed on device

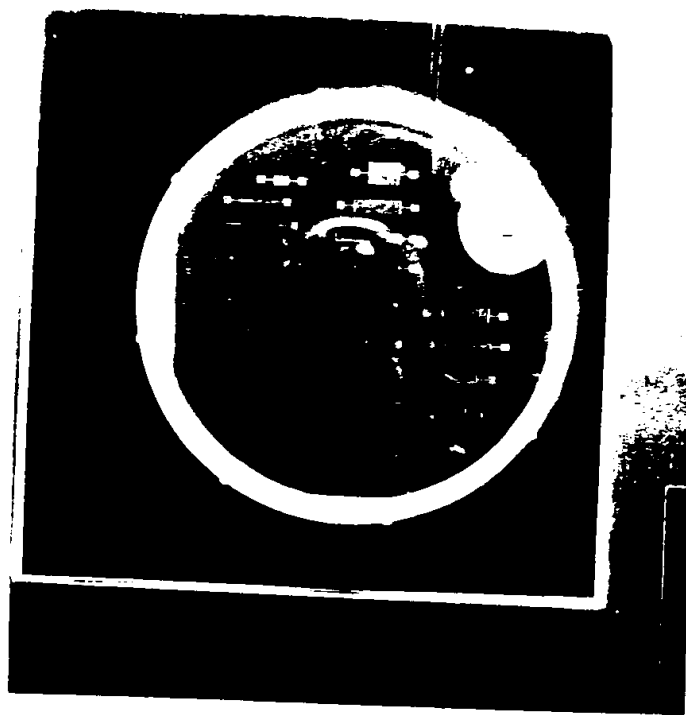
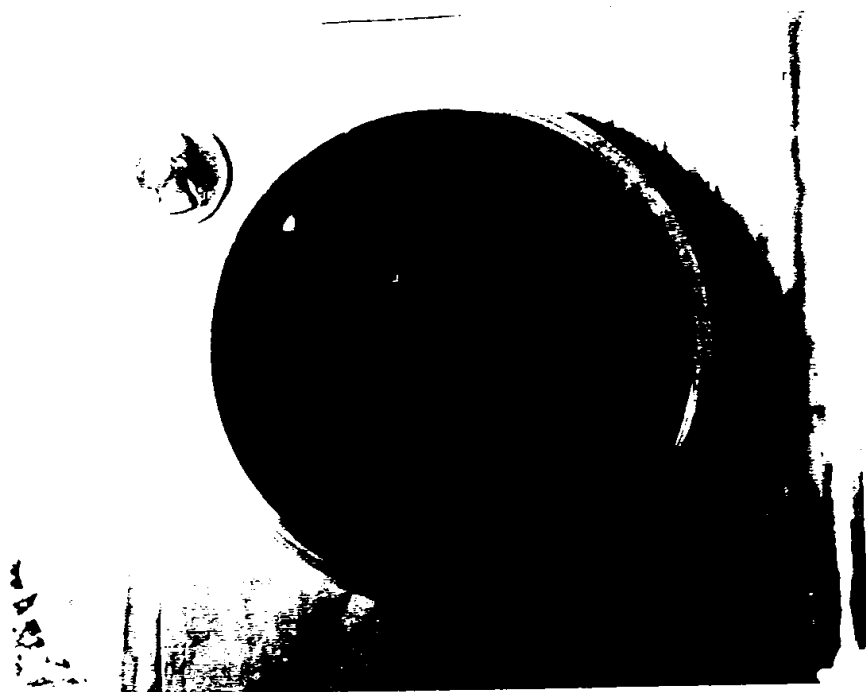
- 25 cycles on standards

Get!



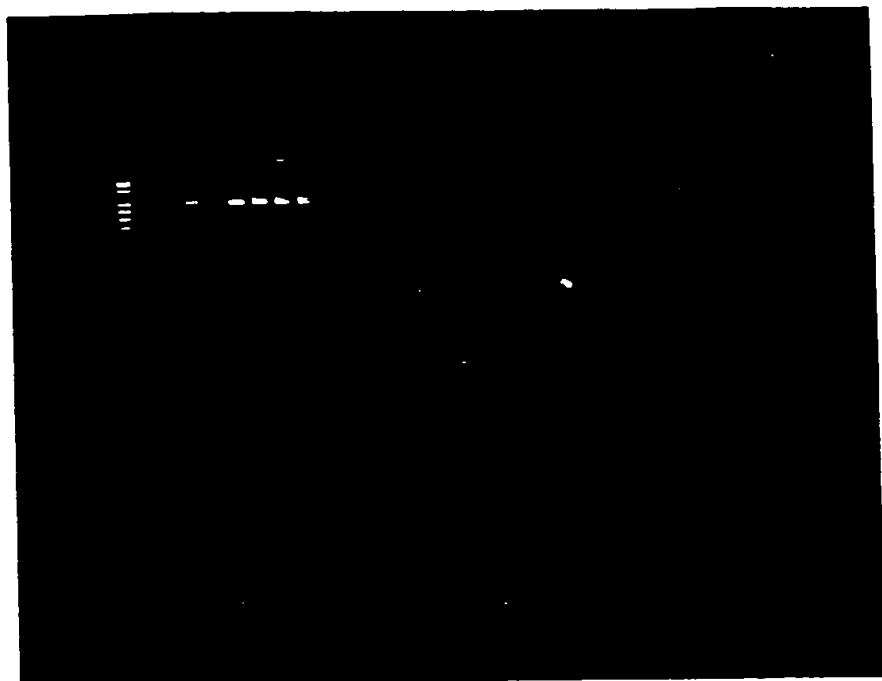
1	20	rel	of graphite	} 25 cycles
2	30			
3	40			
4	20	rel	of graphite	
5	20			
6	20			
7	40			

A - E = device = 30 cycles



M. All *any*

35



no. 0.00 1.00

Results:

- Graphite did not have a significant effect (lanes 1-3)
- Primer Dimer formed in wells
lanes (9-11)
due probably to not reaching
high enough T for lambda
to denature
- note this system has 2-base
overhang which is lent
toward primer-dimer formation
- evidence of steep T-gradient
- Try higher T (4°) longer 1 min.